Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) An apparatus for transmitting data, the apparatus comprising:

segmenting means for segmenting data into data frames;

buffering means for buffering the data frames from the segmenting means;

transmitting means, connected to the buffering means to receive data frames therefrom, for transmitting the data frames; and

controlling means for controlling the segmenting means, the controlling means being arranged to receive parameter data from the segmenting means pertaining to the segmented data frames and radio link resources data from the transmitting means pertaining to the transmission of data frames, to calculate a high watermark value and a low watermark value in response to the received parameter data and radio link resources data corresponding to maximal and minimal numbers of data frames to be buffered in the buffering means, and to control the segmenting means to maintain the number of data frames in the buffering means between the high and low watermark values.

2. (Original) An apparatus as claimed in claim 1, wherein the controlling means is arranged to define a high band of values including the high watermark value and a low band of values including the low watermark values.

3. (Original) An apparatus as claimed in claim 2, wherein the controlling means is arranged to generate a suspend signal for the segmenting means when the number of data frames in the buffering means is in the high band.

4. (Previously Presented) An apparatus as claimed in claim 2, wherein the controlling means is arranged to generate a resume signal for the segmenting means when the number of data frames in the buffering means is in the low band.

5. (Previously Presented) An apparatus as claimed in claim 1, wherein the controlling means is operable to control the transmitting means, the controlling means being arranged to generate a buffer empty signal for the transmitting means when the buffering means contains no data.

6. (Previously Presented) An apparatus as claimed in claim 1, wherein the segmenting means is arranged to transfer to the controlling means parameter data pertaining to time-out value of a retransmission timer susceptible to delay.

7. (Previously Presented) An apparatus as claimed in claim 6, wherein the controlling means is arranged to calculate a transmit delay time by multiplying the time-out value by a constant, wherein the constant has a value greater than zero and less than or equal to 0.5.

8. (Previously Presented) An apparatus as claimed in claim 1, wherein the segmenting means is arranged to transfer to the controlling means parameter data pertaining to the size of the largest data frame that may be transmitted by the transmitter.

9. (Previously Presented) An apparatus as claimed in claim 8, wherein the controlling means is arranged to calculate the size of the largest frame from the largest data frame that may be passed to the transmitting means for transmission.

10. (Previously Presented) An apparatus as claimed in claim 9, wherein data frames may be transmitted in acknowledged and unacknowledged modes, and the controlling means is arranged to calculate the size of the largest frame as the greater of the largest data frame that may be passed to the transmitting means for transmission in the acknowledged mode and the largest data frame that may be passed to the transmitting means for transmission in the unacknowledged mode.

11. (Previously Presented) An apparatus as claimed in claim 1, wherein the radio link resources data from the transmitting means includes an allocated coding scheme and a number of allocated transmission slots for the data frames to be transmitted, and the controlling means is

arranged to calculate a transmit rate from the allocated coding scheme and the number of allocated transmission slots.

12. (Previously Presented) An apparatus as claimed in claim 9,

wherein the radio link resources data from the transmitting means includes an allocated coding scheme and a number of allocated transmission slots for the data frames to be transmitted, and the controlling means is arranged to calculate a transmit rate from the allocated coding scheme and the number of allocated transmission slots; and

wherein the controlling means is arranged to calculate the high watermark value from the calculated size of the largest frame and the calculated transmit rate.

13. (Previously Presented) An apparatus as claimed in claim 1, wherein the controlling means is arranged to calculate the low watermark value as a fraction of the high watermark value.

14. (Currently Amended) A method of transmitting data, the method comprising:

segmenting data into data frames;

buffering the data frames;

receiving buffered data frames;

transmitting the data frames;

receiving parameter data pertaining to the segmented data frames and radio link resources data pertaining to the transmission of data frames;

calculating a high watermark value and a low watermark value in response to the received parameter data and radio link resources data corresponding to maximal and minimal numbers of data frames to be buffered; and

maintaining the number of buffered data frames between the high and low watermark values by controlling the segmenting data into data frames by monitoring the calculated high watermark value and [[a]] the calculated low watermark value.

15. (Original) A method as claimed in claim 14, further comprising defining a high band of values including the high watermark value and a low band of values including the low watermark values.

16. (Original) A method as claimed in claim 15, further comprising generating a suspend signal for the segmenting when the number of buffered data frames is in the high band.

17. (Previously Presented) A method as claimed in claim 16, further comprising generating a resume signal for the segmenting when the number of buffered data frames is in the low band.

18. (Previously Presented) A method as claimed in claim 14, further comprising generating a buffer empty signal for the transmitting when there are no buffered data frames.

19. (Previously Presented) A method as claimed in claim 14, further comprising calculating a transmit delay time by multiplying a time-out value of a retransmission timer susceptible to delay by a constant, wherein the constant has a value greater than zero and less than or equal to 0.5.

20. (Previously Presented) A method as claimed in claim 14, wherein data frames may be transmitted in acknowledged and unacknowledged modes, the method further comprising calculating the size of the largest frame that may be transmitted by the transmitter as the greater of the largest data frame that may be transmitted in the acknowledged mode and the largest data frame that may be transmitted in the unacknowledged mode.

21. (Previously Presented) A method as claimed in claim 14, wherein data is transmitted according to an allocated coding scheme and a number of allocated transmission slots, the method further comprising calculating a transmit rate from the allocated coding scheme and the number of allocated transmission slots.

22. (Previously Presented) A method as claimed in claim 20,

wherein data is transmitted according to an allocated coding scheme and a number of allocated transmission slots, the method further comprising calculating a transmit rate from the allocated coding scheme and the number of allocated transmission slots; and

wherein the high watermark value is calculated from the calculated size of the largest frame and the calculated transmit rate.

23. (Previously Presented) A method as claimed in claim 14, wherein low watermark value is calculated as a fraction of the high watermark value.

24. (Original) A data transmitter in which incoming data for transmission is divided into data blocks and passed in frame transmission order to a radio link stage via a serial frame buffer which holds the data until the radio link is able to transmit it, the incoming data having associated with it various parameters and the radio link stage having allocated to it radio link resources which parameters and resources change independently of each other from time to time and are supplied to a controller which calculates high and low buffer levels therefrom and controls the passing of the data frames through the frame buffer to maintain the number of frames in the buffer at any instant of time at a level between the calculated high and low levels.

25. (Canceled).

26. (Previously Presented) An apparatus for transmitting data, comprising:

a first transmit processor operable to segment data into data frames;

a buffer operable to buffer the data frames from the first transmit processor;

a second transmit processor, connected to the buffer and operable to receive data frames therefrom, and further operable to transmit the data frames; and

a controller operable to control the first transmit processor, the controller being arranged to receive parameter data from the first transmit processor pertaining to the segmented data frames and radio link resources data from the second transmit processor pertaining to the transmission of data frames, to calculate a high watermark value and a low watermark value in response to the received parameter data and radio link resources data corresponding to maximal

and minimal numbers of data frames to be buffered in the buffer, and to control the first transmit processor to maintain the number of data frames in the buffer between the high and low watermark values.

27. (Previously Presented) An apparatus as claimed in claim 26, wherein the controller is arranged to define a high band of values including the high watermark value and a low band of values including the low watermark values.

28. (Previously Presented) An apparatus as claimed in claim 27, wherein the controller is arranged to generate a suspend signal for the first transmit processor when the number of data frames in the buffer is in the high band.

29. (Previously Presented) An apparatus as claimed in claim 27, wherein the controller is arranged to generate a resume signal for the first transmit processor when the number of data frames in the buffer is in the low band.

30. (Previously Presented) An apparatus as claimed in claim 26, wherein the controller is operable to control the second transmit processor, the controller being arranged to generate a buffer empty signal for the second transmit processor when the buffer contains no data.

31. (Previously Presented) An apparatus as claimed in claim 26, wherein the first transmit processor is arranged to transfer to the controller parameter data pertaining to time-out value of a retransmission timer susceptible to delay.

32. (Previously Presented) An apparatus as claimed in claim 31, wherein the controller is arranged to calculate a transmit delay time by multiplying the time-out value by a constant, wherein the constant has a value greater than zero and less than or equal to 0.5.

33. (Previously Presented) An apparatus as claimed in claim 26, wherein the first transmit processor is arranged to transfer to the controller parameter data pertaining to the size of the largest data frame that may be transmitted by the transmitter.

34. (Previously Presented) An apparatus as claimed in claim 33, wherein the controller is arranged to calculate the size of the largest frame from the largest data frame that may be passed to the second transmit processor for transmission.

35. (Previously Presented) An apparatus as claimed in claim 34, wherein data frames may be transmitted in acknowledged and unacknowledged modes, and the controller is arranged to calculate the size of the largest frame as the greater of the largest data frame that may be passed to the second transmit processor for transmission in the acknowledged mode and the largest data frame that may be passed to the second transmit processor for transmission in the unacknowledged mode.

36. (Previously Presented) An apparatus as claimed in claim 26, wherein the radio link resources data from the second transmit processor includes an allocated coding scheme and a number of allocated transmission slots for the data frames to be transmitted, and the controller is arranged to calculate a transmit rate from the allocated coding scheme and the number of allocated transmission slots.

37. (Previously Presented) An apparatus as claimed in claim 34,

wherein the radio link resources data from the second transmit processor includes an allocated coding scheme and a number of allocated transmission slots for the data frames to be transmitted, and the controller is arranged to calculate a transmit rate from the allocated coding scheme and the number of allocated transmission slots; and

wherein the controller is arranged to calculate the high watermark value from the calculated size of the largest frame and the calculated transmit rate.

38. (Previously Presented) An apparatus as claimed in claim 26, wherein the controller is arranged to calculate the low watermark value as a fraction of the high watermark value.

39. (Previously Presented) The apparatus of claim 1, wherein the segmenting means segments the data into various length data frames in response to controls from the controlling means.

40. (Previously Presented) The apparatus of claim 1, wherein the segmenting means segments the data into a maximum length data frames allowed in response to controls from the controlling means.

41. (Previously Presented) The method of claim 14, wherein the segmenting further comprises:

segmenting the data into various length data frames in response to controls from the controlling means.

42. (Previously Presented) The method of claim 14, wherein the segmenting further comprises:

segmenting the data into a maximum length data frames allowed while maintaining the number of buffered data frames between the high and low watermark values.

43. (Currently Amended) The apparatus of claim 26, wherein the first transmit processor is further operable to segment data into various length data frames in response to controls from the controller ~~controlling means~~.

44. (Previously Presented) The apparatus of claim 26, wherein the first transmit processor is further operable to segment data into a maximum length data frames allowed by the controller.

45. (New) The apparatus of claim 11, wherein the allocated coding scheme comprises a designation for a current radio resource allocation assigned by a MAC protocol.

46. (New) The apparatus of claim 11, wherein the allocated coding scheme includes at least one of:

a 20 octet radio link control radio block payload;

a 30 octet radio link control radio block payload;

a 36 octet radio link control radio block payload; or

a 50 octet radio link control radio block payload.

47. (New) The apparatus of claim 36, wherein the allocated coding scheme comprises a designation for a current radio resource allocation assigned by a MAC protocol.

48. (New) The apparatus of claim 36, wherein the allocated coding scheme includes at least one of:

a 20 octet radio link control radio block payload;

a 30 octet radio link control radio block payload;

a 36 octet radio link control radio block payload; or

a 50 octet radio link control radio block payload.

49. (New) At least one processor configured to transmit data, comprising

a first module for segmenting data into data frames;

a second module for buffering the data frames;

a third module for receiving buffered data frames;

a fourth module for transmitting the data frames;

a fifth module for receiving parameter data pertaining to the segmented data frames and radio link resources data pertaining to the transmission of data frames;

a sixth module for calculating a high watermark value and a low watermark value in response to the received parameter data and radio link resources data corresponding to maximal and minimal numbers of data frames to be buffered; and

a seventh module for maintaining the number of buffered data frames between the high and low watermark values by controlling the segmenting data into data frames by monitoring the calculated high watermark value and the calculated low watermark value.

50. (New) A computer program product, comprising:

a computer-readable medium comprising:

a first set of parameters for causing a computer to segment data into data frames;

a second set of parameters for causing the computer to buffer the data frames;

a third set of parameters for causing the computer to receive buffered data frames;

a fourth set of parameters for causing the computer to transmit the data frames;

a fifth set of parameters for causing the computer to receive parameter data pertaining to the segmented data frames and radio link resources data pertaining to the transmission of data frames;

a sixth set of parameters for causing the computer to calculate a high watermark value and a low watermark value in response to the received parameter data and radio link resources data corresponding to maximal and minimal numbers of data frames to be buffered; and

a seventh set of parameters for causing the computer to maintain the number of buffered data frames between the high and low watermark values by controlling the segmenting data into data frames by monitoring the calculated high watermark value and the calculated low watermark value.